(FILE 'HOME' ENTERED AT 17:03:16 ON 25 NOV 2003)

FILE 'CASREACT' ENTERED AT 17:03:30 ON 25 NOV 2003

L1 STRUCTURE UPLOADED
L2 0 S L1
L3 9 S L1 FUL

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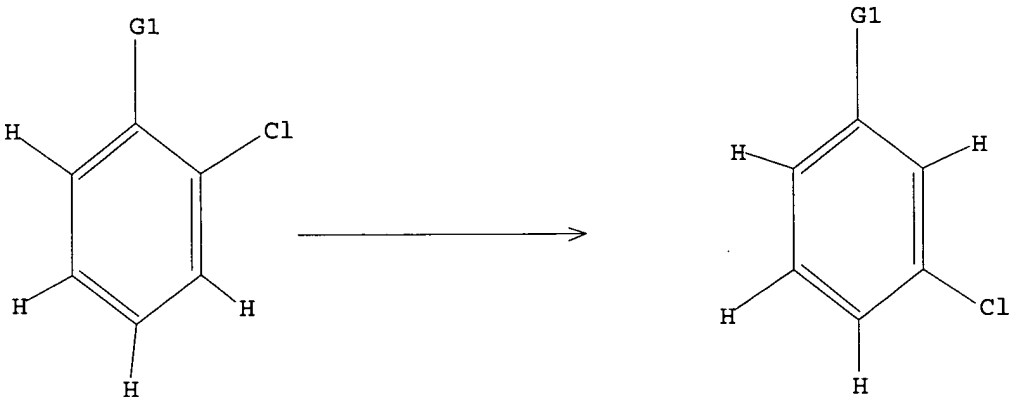
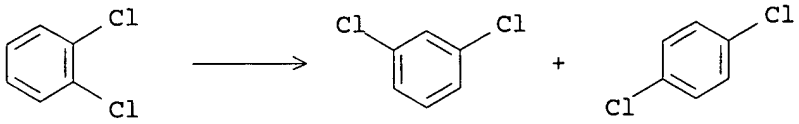


G1 Cl,Me

Structure attributes must be viewed using STN Express query preparation.

L3 ANSWER 1 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(1) OF 1

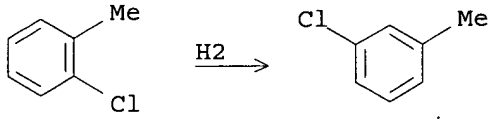


REF: Applied Catalysis, A: General, 243(2), 301-307; 2003
NOTE: high pressure, optimized on zeolite HZSM-5/catalyst

AN 139:23477 CASREACT
TI Liquid phase isomerization of dichlorobenzenes over H-zeolites
AU Kaucky, Dalibor; Fajula, Francois; Moreau, Patrice; Finiels, Annie
CS Laboratoire de Materiaux Catalytiques et Catalyse en Chimie Organique, Ecole Nationale Superieure de Chimie, UMR 5618 ENSCM-CNRS, Montpellier, F-34296, Fr.
SO Applied Catalysis, A: General (2003), 243(2), 301-307
CODEN: ACAGE4; ISSN: 0926-860X
PB Elsevier Science B.V.
DT Journal
LA English
AB Liq. phase isomerization of dichlorobenzenes; i.e., o-dichlorobenzene and/or p-dichlorobenzene to m-dichlorobenzene, catalyzed by solid acid catalysts was investigated as an alternative to the traditional process using AlCl3-type catalysts. The reaction was studied over a series of H-zeolites in a batch autoclave reactor at 340.degree. and 40 bar without solvent. Under these conditions, HZSM-5 and mordenite exhibited the highest activity, while .beta.-zeolite, faujasite and ferrierite showed low activity. These results are directly related to the pore architecture of the various zeolites, which governs deactivation by coke formation. The nature of the coke formed in the two most active zeolites was analyzed.
RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

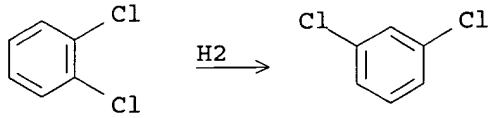
L3 ANSWER 2 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(1) OF 4



REF: Ger. Offen., 4314299, 03 Nov 1994
NOTE: ZSM-5 ZEOLITE CATALYST

RX(2) OF 4



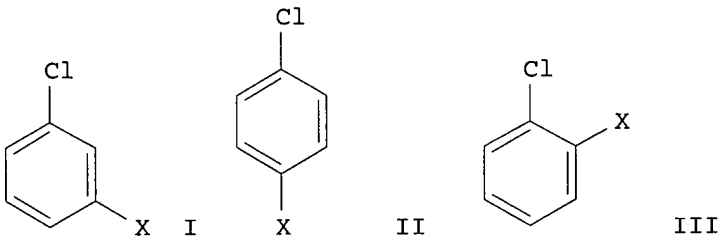
REF: Ger. Offen., 6 pp.; 1994
NOTE: ZSM-5 ZEOLITE CATALYST

AN 122:31105 CASREACT
TI Isomerization process and zeolite catalysts for the preparation of m-dichlorobenzene or m-chlorotoluene from the corresponding para- or ortho- isomers

IN Pies, Michael; Fiege, Helmut; Puppe, Lothar; Kaesbauer, Josef
PA Bayer A.-G., Germany
SO Ger. Offen., 6 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 4314299	A1	19941103	DE 1993-4314299	19930430
EP 623573	A1	19941109	EP 1994-105982	19940418
EP 623573	B1	19970827		
R: DE, FR, GB, IT				
US 5466881	A	19951114	US 1994-232550	19940422
JP 07309792	A2	19951128	JP 1994-109068	19940425
PRAI DE 1993-4314299	19930430			

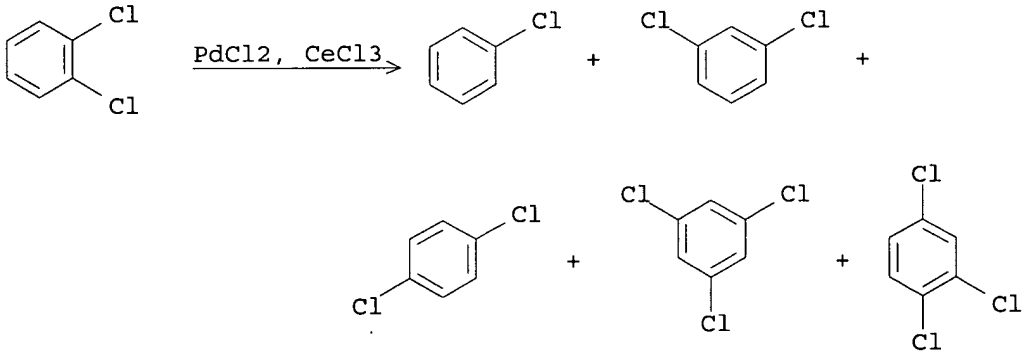
GI



AB The title compds. (I; X = Cl, Me), useful as intermediates in the prepn. of agrochems. and pharmaceuticals (no data), are prepd. in high yield. by contacting a mixt. of the para- (II) or ortho- (III) isomers at elevated temp. (e.g., 150-500.degree.) in the liq. phase and 1-30 mol% H (based on II and III) with a zeolite isomerization catalyst.

L3 ANSWER 3 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(2) OF 5



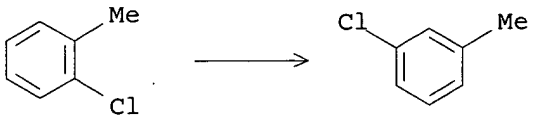
REF: Nippon Kagaku Kaishi, (12), 2006-11; 1989

AN 112:197705 CASREACT
TI Disproportionation of halogenated benzenes
AU Shinoda, Kiyonori; Yasuda, Kensei
CS Toyama Natl. Coll. Technol., Toyama, 939, Japan
SO Nippon Kagaku Kaishi (1989), (12), 2006-11
CODEN: NKAKB8; ISSN: 0369-4577
DT Journal

LA Japanese
AB Chlorobenzenes were disproportionated on activated charcoal-supported PdCl2/CeCl3, accompanied by isomerization. Bromobenzene was also disproportionated into benzene and dibromobenzenes at 350.degree.. Chlorobenzenes were formed by the displacement of bromine with chlorine generated from palladium(II) chloride at the early period for the disproportionation of bromobenzene. Therefore, palladium(II) trihalides anion (PdX3-) seemed to play an important role at the intermediate step of reaction. The mechanism of disproportionation of o-dichlorobenzene (o-DCB) into chlorobenzene and trichlorobenzenes was discussed. The disproportionation of bromobenzene was faster than that of chlorobenzene. The similar product compn. was obtained from the transchlorination of chlorobenzene and trichlorobenzene as well as the disproportionation of o-DCB. There is a reversible relation between the transchlorination and disproportionation. That is to say, it could be confirmed that the disproportionation was an equil. reaction and proceeded smoothly at the same reaction conditions as that of transchlorination.

L3 ANSWER 4 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(1) OF 1

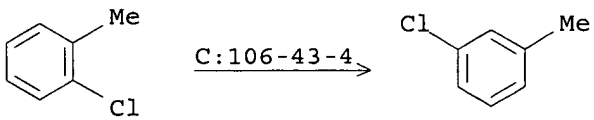


REF: Shiyou Huagong, 17(11), 718-22; 1988

AN 110:233577 CASREACT
TI Isomerization of o-chlorotoluene to m- and p-chlorotoluene
AU Zhao, Zhenhua
CS Dep. Chem., Hunan Norm. Univ., Changsha, Peop. Rep. China
SO Shiyou Huagong (1988), 17(11), 718-22
CODEN: SHHUE8; ISSN: 1000-8144
DT Journal
LA Chinese
AB Isomerization of o-chlorotoluene was carried out in an integral reactor under atm. pressure with PhMe as diluent and HZSM 5 zeolite as catalyst. PhMe inhibited coke deposition on the HZSM 5 zeolite surface. The use of H as carrier gas increased the resistance to coke deposition. The selectivity for m-chlorotoluene increased slightly with increasing space velocity. After regeneration, the activity of deactivated catalyst was completely restored to the initial level.

L3 ANSWER 5 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(4) OF 5



REF: Ger. Offen., 3709415, 29 Sep 1988

AN 110:10089 CASREACT
TI Removal of 3-chlorotoluene from chlorotoluene mixtures by chlorination of the mixture in presence of a Friedel-Crafts catalyst
IN Mais, Franz Josef; Fiege, Helmut
PA Bayer A.-G., Fed. Rep. Ger.
SO Ger. Offen., 7 pp.

CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 3709415	A1	19880929	DE 1987-3709415	19870321
EP 283833	A2	19880928	EP 1988-103580	19880308
EP 283833	A3	19900214		
EP 283833	B1	19920506		
R: DE, FR, GB, IT				
US 4827058	A	19890502	US 1988-166590	19880310
JP 63250331	A2	19881018	JP 1988-59543	19880315
JP 07088328	B4	19950927		
PRAI DE 1987-3709415		19870321		

AB 3-Chlorotoluene (I) is removed from toluene mixts. having I content <10% by chlorinating the extensively I-free chlorotoluene mixt. in the presence of Friedel-Crafts catalyst and an optional cocatalyst at 0.degree. to the b.p. of the mixt. until the I content is <1.0%. In this process I is preferentially chlorinated while its isomers remained unreacted. I-free chlorotoluene mixts. are useful intermediates in manufs. of pharmaceuticals and agrochems. The reactor was charged with 2-chlorotoluene 51.5, I 0.40, 4-chlorotoluene 47.94, dichlorotoluene 0.11, FeCl3 0.025, and S2Cl2 0.015%, the mixt. heated at 32.degree., and Cl added (6.70 Cl2/mol %), producing the reaction mixt. which contained 2-chlorotoluene 49.09, I 0.02, 4-chlorotoluene 46.90, and dichlorotoluene 3.99%.

L3 ANSWER 6 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(2) OF 4

REF: Jpn. Kokai Tokkyo Koho, 63022529, 30 Jan 1988, Showa

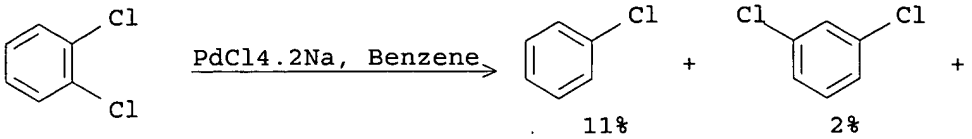
AN 109:150216 CASREACT
TI Isomerization catalysts for manufacture of 1,4-dichlorobenzene
PA Phillips Petroleum Co., USA
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

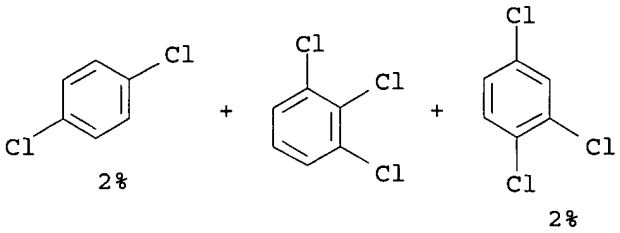
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 63022529	A2	19880130	JP 1987-169593	19870707
US 4727201	A	19880223	US 1986-882578	19860707
CA 1294267	A1	19920114	CA 1987-533949	19870406
EP 255874	A2	19880217	EP 1987-109785	19870707
EP 255874	A3	19881019		
R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE				
US 4766103	A	19880823	US 1987-106760	19871008
PRAI US 1986-882578		19860707		

AB 1,2-Dichlorobenzene is isomerized to p-Cl2C6H4 in the presence of catalysts consisting of components contg. AlCl3, AlBr3, etc. and components contg. .gtoreq.1 of iodine, alk. earth metal sulfates and halides, and lanthanide halides. Thus, a typical catalyst contained Al halides 4-6, Mg halides or sulfates .apprx.2, iodine .apprx.2, lanthanide chlorides .apprx.1 g.

L3 ANSWER 7 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(1) OF 1





REF: Chemistry Letters, (10), 2051-2; 1987

AN 108:204272 CASREACT
TI Transchlorination of o-dichlorobenzene and benzene into chlorobenzene
AU Shinoda, Kiyonori
CS Toyama Natl. Coll. Technol., Toyama, 939, Japan
SO Chemistry Letters (1987), (10), 2051-2
CODEN: CMLTAG; ISSN: 0366-7022
DT Journal
LA English
AB The title transchlorination was carried out in the presence of PdCl2-NaCl catalyst at 400.degree.. Noble metal chloride supported on activated charcoal promoted remarkably the transchlorination.

L3 ANSWER 8 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(3) OF 30

REF: Eur. Pat. Appl., 164045, 11 Dec 1985

AN 104:168092 CASREACT
TI Isomerization of mono- or dichlorotoluene
IN Eichler, Klaus; Arpe, Hans Juergen; Baltes, Herbert; Leupold, Ernst
PA Hoechst A.-G. , Fed. Rep. Ger.
SO Eur. Pat. Appl., 24 pp.
CODEN: EPXXDW
DT Patent
LA German
FAN.CNT 2

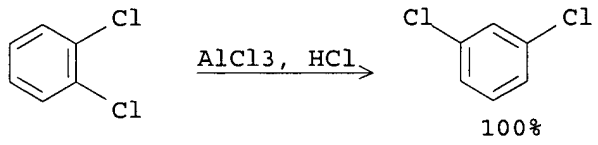
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 164045	A2	19851211	EP 1985-106495	19850525
	EP 164045	A3	19860416		
	EP 164045	B1	19890405		
	R: BE, CH, DE, FR, GB, IT, LI, NL				
	DE 3420706	A1	19851205	DE 1984-3420706	19840602
	DE 3433812	A1	19860320	DE 1984-3433812	19840913
PRAI	DE 1984-3420706	19840602			
	DE 1984-3433812	19840913			

AB A mixt. of 3- and 4-chlorotoluene is prepd. by isomerization of

2-chlorotoluene on a Zr-contg. zeolite catalyst of the pentasil type. Similarly, a mixt. of 2,5- and 3,4-dichlorotoluene is prepd. by isomerization of 2,4-dichlorotoluene, as well as a mixt. of 2,4- and 2,5-dichlorotoluene by isomerization of 3,4-dichlorotoluene. Thus, 620 g 40% colloidal silica gel in 2300 g 20% aq. NPr4OH soln. was concd. to 2200 g and treated with a soln. of 16.6 g Na aluminate and 14.8 g NaOH in 200 g 20% aq. NPr4OH. The mixt. was treated with 37.8 g ZrOCl2 at 160.degree. for 120 h, followed by filtration and calcination of the residue at 500.degree. to give the catalyst. When 2-chlorotoluene and H2 were passed over the catalyst at 6 mL/h and 10L/h, resp., at 250-340.degree., the reaction product after 20 h contained 15.3% 2-, 82.2% 3-, and 12.1% 4-chlorotoluene, as well as 5.1% toluene. The catalyst was only slowly deactivated.

L3 ANSWER 9 OF 9 CASREACT COPYRIGHT 2003 ACS on STN

RX(1) OF 1



100%

REF: 1020323, 05 Dec 1957
NOTE: Classification: Migration; Regioselective; # Conditions: AlCl3 MgCl2 HCl; 180-185 deg

AN 54:6951 CASREACT
TI m-Dichlorobenzene
IN Merkel, Karl
PA Badische Anilin- & Soda-Fabrik Akt.-Ges.
DT Patent
LA Unavailable
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI DE 1020323		19571205	DE	

AB o- and (or) p-Dichlorobenzene was isomerized continuously in a reaction vessel, fitted out with a rectification column, at elevated temp. in the presence of AlCl3, surface active agents, and (or) compds. of metals of the 1st, 2nd, 4th and 8th group of the periodic table, and option-ally in the presence of HCl. The m-dichlorobenzene formed was withdrawn continuously at the head of the column. Thus, o-dichlorobenzene (I) 50 parts/hr. introduced at 180-5.degree. in the presence of HCl into a reaction vessel contg. I 200 and catalyst (AlCl3 100 and MgCl2 50 parts) 150 parts gave m-dichlorobenzene 50 parts/hr., contg. 10% p-isomer (90% conversion). The catalyst could be regenerated and recycled.